- (b) Have a manually activated inflation device:
 - (c) Have an oral inflation device:
- (d) Have an over-pressure relief device: and
- (e) Have a manually operated exhaust valve.

§197.346 Diver's equipment.

- (a) Each diver using SCUBA must have—
- (1) Self-contained underwater breathing equipment including—
- (i) A primary breathing gas supply with a cylinder pressure gage readable by the diver during the dive; and
- (ii) A diver-carried reserve breathing gas supply provided by—
 - (A) A manual reserve (J valve); or
- (B) An independent reserve cylinder connected and ready for use;
 - (2) A face mask;
 - (3) An inflatable floatation device;
- (4) A weight belt capable of quick release;
 - (5) A knife;
 - (6) Swim fins or shoes;
 - (7) A diving wristwatch; and
 - (8) A depth gage.
- (b) Each diver using a heavyweight diving outfit must—
- (1) Have a helmet group consisting of helmet, breastplate, and associated valves and connections;
- (2) Have a diving dress group consisting of a basic dress that encloses the body (except for head and hands) in a tough, waterproof cover, gloves, shoes, weight assembly, and knife;
- (3) Have a hose group consisting of the breathing gas hose and fittings, the control valve, the lifeline, communications cable, and a pneumofathometer; and
- (4) Be provided with a helmet cushion and weighted shoes.
- (c) Each surface-supplied dive operation using a heavyweight diving outfit must have an extra breathing gas hose with attaching tools available to the standby diver.
- (d) Each diver using a lightweight diving outfit must have—
 - (1) A safety harness;
- (2) A weight assembly capable of quick release;
- (3) A mask group consisting of a lightweight mask and associated valves and connections:

- (4) A diving dress group consisting of wet or dry diving dress, gloves, shoes or fins, and knife; and
- (5) A hose group consisting of the breathing gas hose and fittings, the control valve, the lifeline, communications cable, and a pneumofathometer (if the breaking strength of the communications cable is at least equal to that required for the lifeline, the communications cable can serve as the lifeline)
- (e) Each surface-supplied air dive operation within the no-decompression limits and to depths of 130 fsw or less must have a primary breathing gas supply at the dive location.
- (f) Each surface-supplied dive operation outside the no-compression limits, deeper than 130 fsw, or using mixed-gas as a breathing mixture must have at the dive location—
- (1) A primary breathing gas supply; and
- (2) A secondary breathing gas supply.
- (g) Each diver diving outside the nodecompression limits, deeper than 130 fsw, or using mixed-gas must have a diver-carried reserve breathing gas supply except when using a heavyweight diving outfit or when diving in a physically confining area.

OPERATIONS

§ 197.400 Applicability.

Diving operations may only be conducted from a vessel or facility subject to the subpart if the regulations in this subpart are met.

§ 197.402 Responsibilities of the person-in-charge.

- (a) The person-in-charge shall—
- (1) Be fully cognizant of the provisions of this subpart;
- (2) Prior to permitting any commercial diving operation to commence, have—
- (i) The designation of the diving supervisor for each diving operation as required by § 197.210;
 - (ii) A report on—
- (A) The nature and planned times of the planned diving operation; and
- (B) The planned involvement of the vessel or facility, its equipment, and its personnel in the diving operation.

§ 197.404

- (b) Prior to permitting any commerical diving operation involving liveboating to commence, the personin-charge shall insure that—
- (1) A means of rapid communications with the diving supervisor while the diver is entering, in, or leaving the water is established; and
- (2) A boat and crew for diver pickup in the event of an emergency is provided.
- (c) The person-in-charge shall insure that a boat and crew for SCUBA diver pickup is provided when SCUBA divers are not line-tended from the dive location.
- (d) The person-in-charge shall coordinate the activities on and of the vessel or facility with the diving supervisor.
- (e) The person-in-charge shall insure that the vessel or facility equipment and personnel are kept clear of the dive location except after coordinating with the diving supervisor.

§ 197.404 Responsibilities of the diving supervisor.

- (a) The diving supervisor shall—
- (1) Be fully cognizant of the provisions of this subpart;
- (2) Be fully cognizant of the provisions of the operations manual required by §197.420;
- (3) Insure that diving operations conducted from a vessel or facility subject to this subpart meet the regulations in this subpart;
- (4) Prior to the commencement of any commercial diving operation, provide the report required by §197.402 to the person-in-charge;
- (5) Coordinate with the person-incharge any changes that are made to the report required by §197.402; and
- (6) Promptly notify the person-incharge of any diving related casualty, accident, or injury.
- (b) The diving supervisor is in charge of the planning and execution of the diving operation including the responsibility for the safety and health of the dive team.

§197.410 Dive procedures.

- (a) The diving supervisor shall insure that— $\,$
- (1) Before commencing diving operations, dive team members are briefed on—

- (i) The tasks to be undertaken;
- (ii) Any unusual hazards or environmental conditions likely to affect the safety of the diving operation; and
- (iii) Any modifications to the operations manual or procedures including safety procedures necessitated by the specific diving operation;
- (2) The breathing gas supply systems, masks, helmets, thermal protection, when provided, and bell lifting equipment, when a bell is provided or required, are inspected prior to each diving operation;
- (3) Each diver is instructed to report any physical problems or physiological effects including aches, pains, current illnesses, or symptoms of decompression sickness prior to each dive;
- (4) A depth, bottom time profile, including any breathing mixture changes, is maintained at the dive location for each diver during the dive, except that SCUBA divers shall maintain their own profiles;
- (5) A two-way voice communication system is used between—
- (i) Each surface-supplied diver and a dive team member at the dive location or bell (when provided); and
- (ii) The bell (when provided) and the dive location:
- (6) A two-way communication system is available at the dive location to obtain emergency assistance;
- (7) After the completion of each dive—
- (i) The physical condition of the diver is checked by—
 - (A) Visual observation; and
- (B) Questioning the diver about his physical well-being;
- (ii) The diver is instructed to report any physical problems or adverse physiological effects including aches, pains, current illnesses, or symptoms of decompression sickness or gas embolism;
- (iii) The diver is advised of the location of an operational decompression chamber; and
- (iv) The diver is alerted to the potential hazards of flying after diving;
- (8) For any dive outside the no-decompression limits, deeper than 130 fsw, or using mixed-gas as a breathing mixture—
- (i) A depth, time, decompression profile including breathing mixture